ATTACHMENT 1

ENVIRONMENTAL EVALUATION NOTIFICATION FORM NO. BNL-357 (NEPA, CATEGORICAL EXCLUSION)

ENVIRONMENTAL EVALUATION NOTIFICATION FORM

Grantee/Contractor Laboratory: BROOKHAVEN NATIONAL LABORATORY

Project/Activity Title: BGRR Stabilization and Maintenance Activities

CH NEPA Tracking No.: BNL-357 Type of Funding: OE

B&R Code: _____ Total Estimated Cost: $880,000

DOE Cognizant Secretarial Officer (CSO): M. Krebs, SC-1; J. Owendoff, EM-1

Contractor Project Manager: S. Pulsford Signature: _____

Date: 5/14/99

Contractor NEPA Reviewer: T. Sperry Signature: _____

Date: 5/14/99

I. **Description of Proposed Action:**

Proposed actions would conduct stabilization and maintenance activities on the Brookhaven Graphite Research Reactor and associated systems to maintain the facility in a safe shut down state pending final decisions regarding decommissioning anticipated in the next five years. Specific actions that would be accomplished include: 1) Routine decontamination of surfaces of equipment, rooms, and other interior surfaces of the building; 2) Removal of interior temporary walls/materials/debris previously erected to isolate a portion of the BGRR interior (Building 701) to house a science museum which was closed and relocated in 1998; 3) Removal of primary and secondary fans/equipment/waste from the Fan House, Building 704; and 4) Decontamination or fixation of radioactive contamination on interior surfaces of Building 704 and seal openings to isolate the decontaminated building against potential spread of radioactive contamination. In addition, contaminated intact equipment and other materials excluding spent nuclear fuel or special nuclear material would be removed for disposal. These actions are proposed to maintain the facility in a safe and monitored state. During a building by building facility review that was conducted by BNL in 1997, the BGRR Air Cooling Ducts associated with Building 704 were found to contain 60,000 gallons of radioactively contaminated water which entered as rainwater intrusion and was subsequently leaching to the environment causing localized ground water contamination. These actions would maintain a safe condition by isolating and decontaminating the Fan House, removing contaminated equipment, and removing barriers that impede proper characterization and monitoring of the facility. See attachments for additional information.

II. **Description of Affected Environment:**

All work would occur within the BGRR and associated support facilities. No impacts to environmentally sensitive areas would be anticipated. Potential sources of environmental contamination would be eliminated.

III. **Potential Environmental Effects:** (Attach explanation for each "yes" response, and "no" responses if additional information is available and could be significant in the decision making process.)

A. Sensitive Resources: Will the proposed action result in changes and/or disturbances to any of the following resources?

	Yes/No
1. Threatened/Endangered Species and/or Critical Habitats	N
2. Other Protected Species (e.g. Burros, Migratory Birds)	N
3. Wetlands	N
4. Archaeological/Historic Resources	Y
5. Prime, Unique or Important Farmland	N
6. Non-Attainment Areas	N
7. Class I Air Quality Control Region	N
8. Special Sources of Groundwater (e.g. Sole Source Aquifer)	Y
9. Navigable Air Space	N
10. Coastal Zones	N
11. Areas w/Special National Designation (e.g. National Forests, Parks, Trails)	Y
12. Floodplain	N

B. Regulated Substances/Activities: Will the proposed action involve any of the following regulated substances or activities?

	Yes/No
13. Clearing or Excavation (indicate if greater than 5 acres)	N
14. Dredge or Fill (under Clean Water Act section 404; indicate if greater than 10 acres)	N
15. Noise (in excess of regulations)	N
16. Asbestos Removal	Y
17. PCBs	Y
18. Import, Manufacture or Processing of Toxic Substances	N
19. Chemical Storage/Use	N
20. Pesticide Use	N
21. Hazardous, Toxic, or Criteria Pollutant Air Emissions	N
22. Liquid Effluent	N
23. Underground Injection	N
24. Hazardous Waste	Y
25. Underground Storage Tanks	N
26. Radioactive (AEA) Mixed Waste	Y
27. Radioactive Waste	Y
28. Radiation Exposures	Y

C. **Other Relevant Disclosures. Will the proposed action involve the following?**

	Yes/No
29. A threatened violation of ES&H regulations/permit requirements	N
30. Siting/Construction/Major Modification of Waste Recovery, or TSD Facilities	N
31. Disturbance of Pre-existing Contamination	Y
32. New or Modified Federal/State Permits	N
33. Public controversy (e.g. Environmental Justice Executive Order 12898 consideration and other related public issues.)	N
34. Action/involvement of Another Federal Agency (e.g. license, funding, approval)	Y
35. Action of a State Agency in a State with NEPA-type law. (Does the State Environmental Quality Review Act Apply?)	Y
36. Public Utilities/Services	N
37. Depletion of a Non-Renewable Resource	N

IV. **Section D Determination**: Is the project/activity appropriate for a determination by the Group Manager under Subpart D of the DOE NEPA Regulations for compliance with NEPA?

Yes

Indicate the recommendation and specific class of action from Appendix A-D to Subpart D (10 CFR 1021):

CX

B1.28 Minor activities to place a facility in an environmentally safe condition, no proposed uses

B6.1 Small scale, short term cleanup actions under RCRA, Atomic Energy Act, or other authorities

DOE Recommendation:

BHG NCO: Gerald Granzen Signature: [signature]

Date: 5/19/99

LGL-GL: Joan Shands Signature: [signature]

Date: 5/24/99

Group Manager Subpart D CX Determination and Approval:

The preceding pages are a record of documentation required under DOE Final NEPA Regulation, 10 CFR Part 1021.400, to establish that an action may be categorically excluded from further NEPA review. I have determined that the proposed action meets the requirements for the Categorical Exclusion referenced above. Therefore, by my signature below, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation.

BHG Manager: George Malosh Signature: [signature]

Date: 5/25/99

Section V: **Additional Information**

A4, 11 Proposed actions would require interior modifications and equipment removal within the BGRR and support facilities. The BGRR was identified to BNL as potentially eligible for inclusion in the National Register of Historic Places by representatives of the New York State Historic Preservation Officer during a June 1990 site overview and tour. This recommendation was reaffirmed in an April 1991 correspondence. Although the Laboratory and DOE have not petitioned for inclusion of the BGRR on the National Register, a programmatic agreement with the Advisory Council on Historic Preservation is proposed. This agreement could result in the listing of BGRR and other Laboratory facilities on the National Register. The historic significance associated with the BGRR was its utilization as a scientific research tool for peaceful applications, one of the first nuclear reactors operated expressly for this purpose. The proposed action would not diminish those characteristics that lend historic significance to this facility. This opinion would be coordinated with the NYSHPO.

A8 The BGRR is located on central Long Island atop a deep recharge area for an EPA designated "Sole Source Aquifer". During a 1997 review of the facility it was found that sources of contamination from within the facility possessed pathways for releases of radioactive contaminants to the environment and possible exposure pathways that could impact the site workforce. Contamination of the underlying aquifer has been identified and investigations are ongoing to determine if BGRR air cooling ducts are the source that has resulted in localized Strontium-90 contamination. This proposal would provide for the stabilization and maintenance of the BGRR by identifying some of these contaminant sources and isolating or removing them to minimize potential impact to workers and the environment.

B16, 17, 24, 26 27, 28 The areas within the BGRR to be maintained/stabilized are known or suspected to contain asbestos and/or polychlorinated biphenyls. Many of these areas also involve radioactive contamination. Removal of equipment, isolation of radioactive contamination, and general surveillance and removal activities would have the potential to expose workers to hazardous and radiological materials as well as generate hazardous, radioactive, and mixed wastes. Work planning and advanced characterization would be utilized to minimize worker exposures.

All work involving possible radiation exposures would require a radiation work permit. Personnel activities would be monitored by health physics personnel to ensure controls are in place that would ensure work is conducted within the established requirements of the BNL Radiation Control Manual and the BNL ALARA program. Advanced monitoring information would aide in the establishment of appropriate work controls and personal protective equipment utilization.

It is not possible at this time to determine the quantities of each waste stream. Attempts would be made where possible to decontaminate surfaces to minimize the volume of waste in each waste stream and permit material disposal as construction debris or permit recycling when possible. All waste streams to be produced currently have available outlets with ample capacity with the exception of mixed waste involving PCBs. These items would be placed in storage at the Waste Management Facility pending the

availability of a TSD facility that would accept these wastes. Some of this waste stream currently exists at the Waste Management Facility and has been in storage for over five years in some cases.

C31, 34 35 The BGRR has been slated for decontamination and decommissioning. Radiological contamination is present within many areas of Buildings 701 and 704 as a result of past reactor operations. Much of this contamination/activation is fully contained within isolated facilities and systems and presents no threat to the environment. This contamination would require removal to permit unrestricted use of the buildings or demolition and disposal to eliminate potential worker exposure pathways.

The buildings also possess contamination with the potential to be released to the environment. Some proposed actions have been identified and are expected to be resolved utilizing the CERCLA process. Both time critical removal actions and non-time critical actions are proposed. These activities are expected to be evaluated utilizing the incorporation of NEPA values into the CERCLA documentation process. The actions proposed in this action neither facilitate, necessitate, nor obligate the other actions under consideration. Those activities would require coordination and acceptance of project documentation by the USEPA and NYSDEC. These actions are not considered connected actions and require no decision-making requirements beyond that prescribed by the DOE NEPA Implementing procedures.